## REMARKS

Claims 1 through 9 are pending in this application. Claim 5 has been amended. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present amendment should be apparent throughout the originally filed disclosure, noting that the Amendment to claim 5 address a formalistic issue. Applicants submit that the present Amendment does not generate any new matter issue.

**Claim 5 was rejected under the second paragraph of 35 U.S.C. § 112.**

In the statement of rejection the Examiner asserted that the word "if" renders the claimed invention indefinite. This rejection is traversed.

In response, the word "if" has been changed to "when". Thereby overcoming the stated basis for the imposed rejection. Applicant submits that the one having ordinary skill in the art would have no difficulty understanding the scope of the claimed invention, particularly when reasonably interpreted in light of and consistent with the written description of the specification, which is the judicial standard. *Miles Laboratories, Inc. v. Shandon, Inc., 997 F.2d 870, 27 USPQ2d 1123 (Fed. Cir. 1993).* Further, Applicant notes that alternative language does not, per se, render a claimed invention indefinite. *Ex parte Cordova, 10 USPQ2d 1949 (BPAI 1987); Ex parte Head, 214 USPQ 551 (Bd.App. 1981).*

Applicant, therefore, submits that the imposed rejection of claim 5 under the second paragraph of 35 U.S.C. § 112 is not viable and, hence, solicits withdrawal thereof.

**Claims 1 through 9 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Horn et al.**

In the statement of rejection the Examiner referred to various paragraphs of the published application and to Fig. 4, asserting the disclosure of a method and apparatus corresponding to those claimed. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc. 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003); Crown Operations International Ltd. v. Solutia Inc., 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002).* When imposing a rejection under 35 U.S.C. § 102 for lack of novelty, it is incumbent upon the Examiner to specifically identify wherein an applied reference is asserted to identically disclose each and every feature of a claimed invention, particularly when such is not apparent as in the present case. *In re Rijckaert, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).* That burden has not been discharged. Moreover, there are significant differences between the claimed methods and apparatus vis-à-vis the method and apparatus disclosed by Horn et al. that scotch the factual determination that Horn et al. disclose a method and apparatus identically corresponding to those claimed.

Specifically, by way of background, in Luby Transform, the original data of the contents are created into meta contents adding an overhead, and packets having these meta contents data are distributed. The optimum value of the overhead when the contents are created into meta contents varies according to the size of the data.. However, the sizes of the contents (the

segments) are arbitrary, so the distribution side sets the overhead to a safe value (the largest value of the fluctuation range of the overhead, (e.g., 104 to 105%) so that the contents can be regenerated without deterioration, regardless of the sizes. Therefore, compared with the case of setting the overhead to an optimum value according to the data size, the volume of meta contents transmission data increases and the transmission band increases. Therefore; the **present invention** is directed to optimizing the overhead according to the data size. In particular, the present invention assumes that a variable block generated by the block division and is aimed at optimizing the overhead.

Further in accordance with the present invention, the size of a fixed block is based on the overhead, and the overhead for each segment of the contents is set based on the overhead in the fixed block. The size of the segment may be an integer multiplication of the size of the fixed block, or may not be an integer multiplication thereof.

The present invention, therefore, provides a method to minimize "e" as an overhead in the system where there are "e" and "L". The present invention particularly copes with a change occurring by a variable block generating by the block division, and provides a method to set "e" depending on the variable blocking. Adverting to Fig. 6, "e" is an overhead for creating meta contents in each segment, and "L" is a packet loss tolerance for packet loss. In accordance with the present invention, it is necessary to receive a packet of "e" times so that the original data of the contents is restored to 100%.

In accordance with the present invention, the size of a fixed block is set based on the overhead, and the overhead for each segment of the contents is set based on the overhead in the fixed block. The size of the segment may be an interger multiplication of the size of the fixed block, or may not be an integer multiplication thereof.

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Therefore, the overhead of a segment becomes the overhead in the fixed block when the size of the segment is an integer multiplication of the size of the fixed block, and it becomes the overhead in the fixed block and the overhead in the remaining block when the size of the segment is not an integer multiplication. In both cases, the overhead of the segment is based on the overhead in the fixed block, and even if the size of the segment is not an integer multiplication, the overhead of the segment becomes a value closer to the overhead in the fixed block as the number of fixed blocks included in the segment increases. Thus, according to the present invention, the size of the fixed block is set considering the overhead thereof, so that the overhead of the segment can be set to an optimum value according to the size of the segment (also the size of the contents).

In particular, in accordance with the present invention, if the size of the segment is not an integer multiplication of the size of the fixed block, the playout time (the size) of a variable block, which is the remaining block which cannot be divided by the fixed block, and the overhead of the variable block, are determined for each segment of the contents. Then, according to the present invention, the product of the playout time and the overhead of the variable block are calculated using the registration time of all the fixed blocks and the transmission time of the segment, and the playout time and the overhead of the variable block are determined from this product using a predetermined numerical analysis method. In this way, the present invention can advantageously cope with a change by a variable block generating by the block division, and can set the overhead for each segment depending on the variable blocking.

For example, as shown in figure 8, the overhead takes a value of 104%-105% depending on the data size. In the present invention, the size of a fixed block is set based on an overhead of 104%. Therefore, according to the present invention, when the size of the segment is an integer

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multiplication of the size of the fixed block, the overhead "e" of the segment is 104%. Further, in accordance with the present invention, when the size of the segment is not an integer multiplication of the size of the fixed block, the most suitable overhead for the variable block is calculated by a method to show for figure 10, the most suitable overhead of the segment is calculated by the overhead (a value that is greater than 104%) of the variable block and the overhead (104%) of the fixed block. Therefore, in accordance with the present invention, extra data are not transmitted, and the redundancy is set at the most suitable value.

As one having ordinary skill in the art would have understood, Horn et al. are completely different from the present invention. Specifically, in Horn et al., "e/(1-L)" is .the overhead, and "e" is a fixed value. For example, if "L" is 20% and "e" is 100%, the number. of distributed packets is "1/(1-0.8)=1.25" times of the original number of packets.

Horn et al. cope with a change occurring by a variable block generating by the block division, "e" is set a safe value (the largest value of the fluctuation range of the overhead). For example, the overhead takes a value of 104%-105% depending on the data size. In Horn et al., when the size of the segment is an integer multiplication of the size of the fixed block, "e" is 105%, and when the size of the segment is not an integer multiplication of the size of the fixed block, "e" is 105%. Therefore, in Horn et al., extra data are transmitted, and the redundancy is set at the excess value.

Further, if "L" is 0%, the overhead "e" of in accordance with the present invention appears to agree with the overhead "e/.(1-L)" of the prior art. But, the invention of Horn et al. assumes that "L" will never be 0%. Moreover, the invention of Horn et al. does not provide a method to minimize "e" depending on changes in the data size.

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The above argued differences between the present inventions and Horn et al. undermine the factual determination that Horn et al. disclose a method and apparatus identically corresponding to those claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Applicant, therefore, submits that the imposed rejection of claims 1 through 9 under 35 U.S.C. § 102 for lack of novelty as evidenced by Horn et al. is not factually viable and, hence, solicit withdrawal thereof.

Based upon the foregoing, it should be apparent that the imposed rejections have been overcome, and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

Arthur J. Steiner
Registration No. 26,106

600 13<sup>th</sup> Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 AJS:MWE:ntb
Facsimile: 202.756.8087
Date: **May 8, 2006**

**Please recognize our Customer No. 20277 as our correspondence address.**